

# Weilun Sun

## Email

sunweilunjwilson@gmail.com

## Homepage

<http://sunweilun.github.com>

## EDUCATION

---

### Doctor of Philosophy

2014 – present

Computer Graphics, EECS

Visual Computing Lab, UC Berkeley, California, USA

Advisor: [Prof. Ravi Ramamoorthi](#)

### Bachelor of Engineering

2010 – 2014

Computer Science & Technology

Tsinghua University, Beijing, China

Overall GPA: 88/100

Official Overall Ranking: #21 out of 100 students

## RESEARCH EXPERIENCE

---

### Anisotropic Spherical Gaussians

February – May, 2013

SIGGRAPH Asia 2013 Technical Paper

Graphics & Geometry Computing Group, TNList, Tsinghua University

Mentor: [Dr. Kun Xu](#)

- Investigated the form of Anisotropic Spherical Gaussian (ASG for short).
- Implemented a *Precomputed Radiance Transfer* rendering program based on theories in the paper.

### Sketch2Scene

September, 2012 – January, 2013

SIGGRAPH 2013 Technical Paper

Graphics & Geometry Computing Group, TNList, Tsinghua University

Mentor: [Dr. Kun Xu](#)

- Reproduced a single-model retriever based on paper *Sketch-Based Shape Retrieval*.
- Implemented part of the GUI of the project system.
- Provided the co-arrangement algorithm in the paper.

## PUBLICATIONS

---

- “Anisotropic Spherical Gaussians,”  
Proceedings of SIGGRAPH Asia 2013, ACM Transactions on Graphics 32(6), 209:1 - 209:11, 2013.  
[Kun Xu](#), [Wei-Lun Sun](#), [Zhao Dong](#), Dan-Yong Zhao, Run-Dong Wu, [Shi-Min Hu](#)
- “Sketch2Scene: Sketch-based Co-retrieval and Co-placement of 3D Models,”  
Proceedings of SIGGRAPH 2013, ACM Transactions on Graphics 32(4) , 123:1–123:12, 2013.  
[Kun Xu](#), Kang Chen, [Hong-Bo Fu](#), [Wei-Lun Sun](#), [Shi-Min Hu](#)

## PRESENTATIONS

---

SIGGRAPH Asia 2013 Technical Paper for *Anisotropic Spherical Gaussians*  
SIGGRAPH Asia 2013 Fastforward for *Anisotropic Spherical Gaussians*

November 22<sup>nd</sup>, 2013  
November 19<sup>th</sup>, 2013

## COURSE PROJECTS

---

### Out-of-Core GPU Path Tracer

November, 2014

Course Project of *Advanced Topics in Computer Systems(CS262a)*, UC Berkeley

- Implemented path tracing on GPU from scratch.
- Supported rendering huge scenes that can not fit into GPU memory by blocking rays querying out of core geometry temporarily.
- Implemented a GPU memory management strategy specialized for path tracing.

## COMPUTER SKILLS

---

**Programming Languages:** C/C++, Java, Python, Matlab

**Softwares & Applications:** OPENCV, OPENGL, QT, CUDA

**Operating Systems:** Windows, Linux, MacOS